

CLAIMS

1. An identification type instrument assembly detachably connected to a main body of a medical apparatus for use in diagnosis and treatment, wherein said instrument assembly comprises an identification signal output means for actively outputting self-identification signals prepared in advance under a predetermined procedure.
2. An identification type instrument assembly detachably connected to a main body of a medical apparatus for use in diagnosis and treatment, comprising:
 - an instrument and,
 - an adapter detachably fitted to said instrument for connecting said instrument assembly to said main body, said adapter housing identification signal output means for actively outputting self-identification signals prepared in advance under a predetermined procedure.
3. An identification type instrument assembly detachably connected to a main body of a medical apparatus for use in diagnosis and treatment, comprising:
 - an instrument and,
 - a tube detachably fitted to said instrument assembly for connecting said instrument assembly to said main body, said tube housing identification signals output means for actively outputting self-identification signals prepared in advance under a predetermined procedure.
4. The identification type instrument assembly as set forth in any one of claims 1 - 3, wherein said identification signal output means is comprised of an ID code output element for serially outputting the ID code proper to said instrument assembly as said identification signals.
5. The identification type instrument assembly as set forth in any one of claims 1 - 3, wherein said identification signal output means is comprised as a microcomputer element or a communication integration element.
6. The identification type instrument assembly as set forth in any one of claims 1 - 3, wherein said identification signal output means is provided with nonvolatile storage means and based on the data stored in said nonvolatile storage means, serial data, voltage level signals of which wave height value is varied at a predetermined repetition cycle, and frequency identification signals of which frequency is varied are used as said identification signals.
7. The identification type instrument assembly as set forth in any one of claims 1 - 3, wherein a connection part for detachably connecting said instrument assembly to said main body is multi joint connection.

8. The identification type instrument assembly as set forth in claim 7, wherein said instrument assembly is comprised of an instrument and an adapter detachably fitted to the instrument and is capable of detachably connecting to a tube introduced from said main body via said adapter, said identification signal output means is provided for said adapter, and connection between said adapter and said tube is multi joint connection.

9. The identification type instrument assembly as set forth in claim 7, wherein said instrument assembly is comprised of an instrument and a tube detachably fitted to the instrument and is capable of detachably connecting to said main body via said tube, said identification signal output means is provided for said tube, and connection between said tube and said main body is multi joint connection.

10. An identification type adapter detachably attached to a instrument assembly, detachably connected to a main body of a medical apparatus for use in diagnosis and treatment, wherein;

 said adapter comprises an identification signal output means for actively outputting self-identification signals prepared in advance for identifying attached instrument assembly under a predetermined procedure, and said instrument assembly is connected to said main body via said adapter.

11. The identification type adapter as set forth in claim 10, wherein a connection part for detachably connecting said adapter to said main body is multi joint connection.

12. An identification type tube detachably attached to a instrument assembly detachably connected to a main body of a medical apparatus for use in diagnosis and treatment, wherein;

 said tube comprises identification signal output means for actively outputting self-identification signals prepared in advance for identifying attached instrument assembly under a predetermined procedure, and said instrument assembly is connected to said main body via said tube.

13. The identification type tube as set forth in claim 12, wherein a connection part for detachably connecting said tube to said main body is multi joint connection.

14. A medical apparatus for use in diagnosis and treatment with a detachably connected instrument assembly to a main body of said apparatus, wherein;

 said instrument assembly is comprised as an identification type instrument assembly having identification signal output means for actively outputting self-identification signals prepared in advance, under a predetermined procedure, and

connected instrument assembly can be specified in said main body by the identification signals output from said identification signal output means when said instrument assembly is connected to said main body.

15. The medical apparatus as set forth in claim 14 wherein when said instrument assembly is specified, a drive circuit or a control circuit can be automatically connected to said instrument assembly corresponding to the specified instrument assembly.

16. The medical apparatus as set forth in claim 14 or claim 15, wherein when said instrument assembly is specified, display mode of display means and/or input mode of input means such as a touch panel can be automatically switched corresponding to the specified instrument assembly.

17. The medical apparatus as set forth in any one of claims 14 - 15, wherein when said instrument assembly is specified, management of usage history and distinction of using operator of the specified instrument assembly can be executed.

18. The medical apparatus as set forth in any one of claims 14 - 15, wherein said main body is provided with a microcomputer element or an integrated element for communication as identification means of identification signals output from said identification signal output means of the connected instrument assembly.

19. The medical apparatus as set forth in any one of claims 14 - 15, wherein wiring to a connection part detachably connecting said instrument assembly in said main body is tree structure.

20. The medical apparatus as set forth in any one of claims 14 - 15 wherein said instrument assembly is the identification type instrument assembly as set forth in claims 1 - 2, and/or is the instrument assembly connected via the identification type adapter as set forth in claim 10 or 11, and/or is the instrument assembly connected via the identification type tube as set forth in claim 12 or 13.